



Revision date: Initial version
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Trade name:	Electronic Switch and Contact Cleaner
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SECTION 1: Identification

Product identifier: Electronic Switch and Contact Cleaner.
Synonyms: None available.
Product Code Number: 40-610.
SDS number: ID011
Recommended use: Solvent cleaner.
Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information:

Company Name: IDEAL INDUSTRIES, INC.
Company Address: Becker Place,
Sycamore, IL 60178
Company Telephone: Office hours (Mon – Fri)
7AM - 5 PM (CDT)
(815)895-5181
Company Contact Name: Darryl Docter.
Company Contact Email: IDEAL@IDEALINDUSTRIES.COM
Emergency phone number: 24 HOUR EMERGENCY NUMBER:
(815)895-5181.

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards

Flammable liquids, Category 2.
Gases under pressure, Liquefied gas.

Health hazards

Acute Toxicity, (Oral), Category 4.
Acute Toxicity, (Inhalation), Category 4.
Eye irritation, Category 2A.
Specific target organ toxicity - single exposure, Category 3, Central nervous system.

Environmental hazards

Not classified as an environmental hazard under GHS criteria.

GHS Signal word: WARNING.

GHS Hazard statement(s): H225 Highly flammable liquid and vapor.

H280 Contains gas under pressure; may explode if heated.
H302+H332 Harmful if swallowed or if inhaled.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
May displace oxygen and cause rapid suffocation.

GHS Hazard symbol(s):



GHS Precautionary statement(s):

Prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P241 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/ vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/eye protection/face protection.

Response:

P301+P312- If swallowed: Call a poison center/doctor if you feel unwell.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use Water, Alcohol foam, Dry chemical or Carbon dioxide (CO₂) to extinguish.

Storage: P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

Disposal: P501 - Dispose of contents/containers to an approved disposal site in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise Classified (HNOC):

None known.

Percentage of ingredient(s) of unknown acute toxicity:

35% of the mixture consists of ingredients of unknown acute toxicity (oral/ inhalation).

100% of the mixture consists of ingredients of unknown acute toxicity (dermal).

SECTION 3: Composition/information on ingredients

Mixture: Hydrocarbon blend.

Chemical name	CAS#	Concentration (weight %)
Aliphatic Petroleum Solvent	64742-89-8	60-70%
1,1-Difluoroethane	75-37-6	20-30%
Isopropyl alcohol	67-63-0	8 – 10%

Note: The balance of the ingredients are not classified as hazardous or under the concentration limit to be classified as hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SECTION 4: First-aid Measures

Description of necessary measures:

Inhalation: Move to fresh air. Use oxygen or artificial respiration if needed. Get medical attention if symptoms persist.

Skin contact: Wash off with warm water and soap. Get medical attention if irritation develops or persists.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion: Do not induce vomiting without advice from poison control center. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

Most important symptoms/effects, acute and delayed: Irritating to eyes. Irritating to respiratory system. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed: If any symptoms are observed, contact a physician and give them this SDS sheet. If exposed or concerned: Get medical advice/attention.

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

Suitable extinguishing media: Water. Alcohol foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard.

Combustion products - Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for fire-fighters: Containers should be cooled with water to prevent vapor pressure build up. Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do so without risk. For fire involving this material, do not enter any enclosed or confined fire space without proper protective equipment. Use self-contained breathing apparatus with full face shield to protect against the hazardous effects of combustion products and oxygen deficiencies.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Methods and material for containment and cleaning up:

Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk.

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. After removal flush contaminated area thoroughly with water.

SECTION 7: Handling and Storage

Precautions for safe handling: Pressurized container: Do not pierce or burn, even after use. Do not smoke while using or until sprayed surface is thoroughly dry. Do not use if spray button is missing or defective. Do not re-use empty containers. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Conditions for safe storage, including any incompatibles: Contents under pressure. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat, sparks and open flame. Avoid exposure to long periods of sunlight. Keep out of the reach of children.
Level 2 Aerosol.

SECTION 8: Exposure controls/personal protection

Control Parameters:

Occupational exposure limits:

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
Aliphatic Petroleum Solvent	500 ppm	No data available
1,1 Difluoroethane	No data available	No data available
Isopropyl Alcohol	400 ppm	No data available

US ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
Aliphatic Petroleum Solvent	300 ppm 1370 mg/m ³	No data available
1,1 Difluoroethane	No data available	No data available
Isopropyl Alcohol	200 ppm	400 ppm

USA. NIOSH Recommended Exposure Limits		
Substance	TWA	STEL
Aliphatic Petroleum Solvent	No data available	No data available
1,1 Difluoroethane	1000 ppm (WEEL)	No data available
Isopropyl Alcohol	400 ppm 980 mg/m ³	500 ppm 1225 mg/m ³

Appropriate engineering controls: General (mechanical) room ventilation is expected to be adequate. Special local ventilation is recommended to keep dust below exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment:

Eye/face protection: The use of OSHA compliant chemical goggles are recommended.

Skin and Hand protection: Chemical resistant gloves should be worn. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Wear positive pressure self-contained breathing apparatus (SCBA). If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Other: None required.

Thermal hazards: No data available.

SECTION 9: Physical and chemical properties

Appearance

Physical state: Liquid
Form: Compressed liquefied gas containing colorless solvent.
Color: Colorless.
Odor: Solvent.
Odor threshold: No data available
pH: Not applicable.
Melting point/freezing point: No data available
Initial boiling point and boiling range: 168.8 °F (76.1 °C) estimated
Flash point: -52 °F (-46.7 °C)
Evaporation rate: No data available

Flammability (solid, gas): 33.48 kJ/g established.
Upper/lower flammability or explosive limits
Flammability limit – lower (%): Not applicable
Flammability limit – upper (%): Not applicable
Explosive limit – lower (%): Not applicable
Explosive limit – upper (%): Not applicable
Vapor pressure: 44 - 54 psig @ 70°F
Vapor density: No data available
Relative Density: 0.7605 estimated
Solubility(ies): Negligible.
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Other information:
Density: 0.7604 g/cm³ estimated

SECTION 10: Stability and Reactivity

Reactivity: Risk of ignition.
Chemical stability: Stable under normal ambient and anticipated conditions of use.
Possibility of hazardous reactions: Hazardous reactions not anticipated.
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: Avoid strong oxidizers.
Hazardous decomposition Products: No hazardous decomposition products are known.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation: Inhalation is an expected route of entry.
Ingestion: Ingestion is not an expected route of entry.
Skin: Skin contact is an expected route of entry.
Eyes: Eye contact is an expected route of entry.

Target Organs: Central nervous system. Lungs.

Symptoms related to the physical, chemical, and toxicological characteristics:

Contact with eyes may cause irritation.
Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Intentional misuse by concentrating and inhaling the product can be harmful or fatal.
Prolonged inhalation may be harmful.
Exposure by ingestion of an aerosol is unlikely.
May cause delayed lung damage.
Components of the product may be absorbed into the body by ingestion.

Delayed and immediate effects and chronic effects from short or long-term exposure:

May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage.

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May cause delayed lung injury.

Signs and symptoms - Discomfort in the chest. Narcosis. Coughing. Defatting of the skin. Skin irritation.

Numerical measures of toxicity:

Ingredient Information:

Substance	Test Type (species)	Value
Aliphatic Petroleum Solvent	LD ₅₀ Oral (Rat)	> 8000 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 4000 mg/kg
	LC ₅₀ Inhalation (Rat)	3400 ppm (4h)
1,1-Difluoroethane	LD ₅₀ Oral (Rat)	No data available
	LD ₅₀ Dermal (Rabbit)	No data available
	LC ₅₀ Inhalation (Rat)	> 437500 ppm (4h)
Isopropyl Alcohol	LD ₅₀ Oral (Rat)	5045 mg/kg
	LD ₅₀ Dermal (Rabbit)	12800 mg/kg
	LC ₅₀ Inhalation (Rat)	16000 ppm (8h)

Product Acute Toxicity Estimates:

Acute Oral Toxicity: No data available.

Acute Dermal Toxicity LD₅₀: 4405 mg/kg estimated, Rat.

Acute Inhalation Toxicity No data available.

Skin corrosion/irritation: Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Serious eye damage/eye irritation: Contact with eyes may cause irritation.

Respiratory sensitization: No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

Skin sensitization: No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

Germ cell mutagenicity: No information available on the mixture, however none of the components have been classified for

germ cell mutagenicity (or are below the concentration threshold for classification).

Carcinogenicity:

No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

Reproductive toxicity:

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

**Specific target organ toxicity-
Single exposure:**

This material is expected to cause damage to organs (central nervous system and lungs) from a single exposure.

**Specific target organ toxicity-
Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

Aspiration hazard:

No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).

Further information:

No data available.

SECTION 12: Ecological information

Ecotoxicity:

Product data:

LC50 12.04 mg/L, Fish, 96 Hours.
EC50 829 mg/L, Daphnia, 48 Hours.
IC50 4340 mg/L, Algae, 72 Hours.

Ingredient Information:

Substance	Test Type	Species	Value
Aliphatic	LC ₅₀	Fish	No data available

Petroleum Solvent	EC ₅₀	Aquatic invertebrate	No data available
	EC ₅₀	Algae	No data available
1,1-Difluoroethane	LC ₅₀	Fish	No data available
	EC ₅₀	Aquatic invertebrate	No data available
	EC ₅₀	Algae	No data available
Isopropanol	LC ₅₀	Fish - - Pimephales promelas (fathead minnow)	9640 mg/l (96h)
	EC ₅₀	Invertebrate Daphnia (water flea)	5102 mg/l (24h)
	EC ₅₀	Algae - Desmodesmus subspicatus (green algae)	> 2000mg/l (72h)

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: Components of this product have been identified as having potential environmental concerns.

SECTION 13: Disposal considerations

Disposal instructions:

Contents under pressure. Dispose of this material and its container to hazardous or special waste collection point. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001.

D001: Waste Flammable material with a flash point <140 F.

See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties.

Use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

SECTION 14: Transport Information

Land transport DOT

UN number	UN 1950
UN proper shipping name	Aerosols
Transport hazard class(es)	2.1
Packing group, if necessary	N/a
Special provisions	153, N82
Packaging exceptions	LTD QTY
Packaging non bulk	None
Packaging bulk	None

Further information Until 12/31/2013, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/13 and may be used now in place of the "Consumer Commodity ORM-D" marking but not concurrently.

Maritime transport IMDG

UN number	UN 1950
Proper shipping name	AEROSOLS
Transport hazard class(es)	2.1
Packing group, if necessary	N/a
Packaging exceptions	LTD QTY
Item	5F
Labels required	None

Air transport ICAO-TI and IATA-DGR

UN number	UN 1950
UN proper shipping name	Aerosols, Flammable
Transport hazard class(es)	2.1
Packing group, if necessary	N/a
Packaging exceptions	LTD QTY
Labels required	2.1

Environmental hazards

Marine pollutant: No.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No further relevant information available.

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

None.

SECTION 15: Regulatory Information

Safety, health and environmental regulations specific for the product.

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All substances in this product are listed, or are exempt as required, on the TSCA inventory.

CERCLA Hazardous Substance List, 40 CFR 302.4: None

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 311 Hazardous Substances: Yes

Section 311/312 (40 CFR 370):

Acute (Immediate) Health Hazard:	Yes
Chronic (delayed) Health Hazard:	No
Fire Hazard:	Yes
Pressure Hazard:	Yes
Reactivity Hazard:	No

Section 313 Toxic Release Inventory (40 CFR 372):

This product contains the following materials that are subject to the reporting requirements of Section 313 of EPCRA:

Isopropyl Alcohol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
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STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986: No components are listed on Prop 65 as a carcinogen.

Massachusetts Right to Know: Solvent Naptha (Petroleum), light aliphatic, 1,1-Difluoroethane and 2-propanol are listed on the Massachusetts Right to Know List.

New Jersey Right to Know: Solvent Naptha (Petroleum), light aliphatic, 1,1-Difluoroethane and 2-propanol are listed on the New Jersey Right to Know list.

Pennsylvania Right to Know: Solvent Naptha (Petroleum), light aliphatic, 1,1-Difluoroethane and 2-propanol are listed on the Pennsylvania Right to Know List.

Canada WHMIS Hazard Class: A (Compressed Gas), B2 (Flammable/combustible material), D2B (Toxic material $\geq 1\%$).

SECTION 16: Other information, including date of preparation or last revision.

Revision Date: May 20, 2015

To the best of our knowledge, the information contained herein is accurate. However IDEAL INDUSTRIES INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.